North America's Leader in Hazardous Material Information Management

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MSDS PRODUCT INFORMATION

Date: 10/07/2005

To: MSDS Requester

From: 3E Company

Subject: The MSDS you have requested

[ ] MSDS NOT REQUIRED
In response to your request for a Material Safety Data Sheet, according to the OSHA Hazard Communicatin Standard (Right-to-Know), the following item is an article. Articles are defined in 29 CFR 1910.1200(c). Products such as Drugs, cosmetics, food, or alcoholic beverages, wood or wood products, and tobacco or tobacco products, as defined in 29 CFR1910.1200(b)(6), are exempt from the Hazard Communication Standard. Items that are considered articles, as defined in 29 CFR 1910.1200(c), are also exempt from this Standard. Therefore, the manufacturer is not required to provide an MSDS for this product.

[X] MSDS DISCONTINUED PRODUCT
In response to your request for a Material Safety Data Sheet, the manufacturer has discontinued the product listed below. The MSDS Attached is the most current version, or an MSDS is no longer available.

[ ] MSDS BEST COPY AVAILABLE
The MSDS attached is the best copy available from the manufacturer.

[ ] MANUFACTURER NO LONGER IN BUSINESS
In response to your request for a Material Safety Data Sheet, a current MSDS could not be obtained for this product. It has been determined that the manufacturer listed below is no longer in business. A current address and phone number could not be located.

Manufacturer: Weyerhaeuser Company

Product Name: Urea Formaldehyde (UF) Bonded Products (DISCONTINUED)

Weyerhaeuser

Materia Safety Data Sheet
Urea Formaldehyde (UF) Bonded Products

Weyerhaeuser Company
Tacoma, WA 98477

Emergency Phone: (253) 924-5000
Additional Information: (253) 924-6367

1. Product Identification

Product	Manufacturing Location
Agriboard	Springfield, OR
Door Core Particleboard	Adel, GA; Marshfield, WI
Medium Density Fiberboard	Moncure, NC
Microboard™	Moncure, NC
Particleboard	Adel, GA; Springfield, OR

Synonyms: Fiberboard, ligno cellulosic matrix, particleboard door core, chipboard, flakeboard.

2. Hazardous Ingredients/Identity Information

Name	CAS#	Percent	Agency	Exposure Limits	Comments
Wood	None	85-94	OSHA	PEL-TWA 15 mg/m3	Total dust
			OSHA	PEL-TWA 5 mg/m3	Respirable dust fraction
			ACGIH	TLV-TWA 5 mg/m3	Softwood total dust
			ACGIH	TLV-STEL 10 mg/m3	Softwood total dust
			ACGIH	TLV-TWA 1 mg/m3	Selected hardwood total dust (beech, oak, others)
			Recommended[1]	PEL-TWA 5 mg/m3	Softwood or hardwood total dust
			Recommended[1]	PEL-STEL 10 mg/m3	Softwood or hardwood total dust
			Recommended[1]	PEL-TWA 2.5 mg/m3	Western red cedar total dust
Urea formaldehyde resin solids[2]	9011-05-6	4-15	OSHA	PEL-TWA 0.75 ppm	Free gaseous formaldehyde
			OSHA	PEL-STEL 2 ppm	Free gaseous formaldehyde
			ACGIH	TLV- Ceiling 0.3 ppm	Free gaseous formaldehyde
Paraffin wax	8002-74-2	0-1	OSHA	PEL-TWA 2 mg/m3	Paraffin wax fume
			ACGIH	TLV-TWA 2 mg/m3	Paraffin wax fume

[1] Weyerhaeuser recommended exposure limits based on 1989 OSHA PELs. In 1992, the U.S. Court of Appeals for the Eleventh Circuit Court overturned OSHA's 1989 Air Contaminants Rule, which included specific PELs for wood dust established by OSHA at that time. Wood dust is now officially regulated as an organic dust in a category known as "Particulates Not Otherwise Regulated" (PNOR), or Nuisance Dust. However, a number of states have incorporated the OSHA PELs from the 1989 standard in their state plans. Additionally, OSHA has announced that it may cite companies under the OSH Act general duty clause under appropriate circumstances for noncompliance with the 1989 PELs.

[2] Contains less than 0.1% free formaldehyde.

3. Hazard Identification

Appearance and Odor: A matrix of light brown or buff-colored interlocking wood fibers/particles/flakes and UF resin solids having a slightly aromatic odor. The wood component of these products may consist of alder, aspen, beech, birch, cottonwood, fir, gum, hemlock, hickory, maple, oak, pecan, pine, poplar, spruce, walnut, and/or Western red cedar.

Primary Health Hazards: The primary health hazards posed by these products are thought to be due to exposure to wood dust or free gaseous formaldehyde.

Primary Route(s) of Exposure:

( ) *Ingestion:*
(X) Skin: *Dust*
(X) Inhalation: *Dust or gas*

3. Hazard Identification, cont.

Medical Conditions Generally Aggravated by Exposure: Gaseous formaldehyde or wood dust may aggravate preexisting respiratory conditions or allergies.
Chronic Health Hazards: Wood dust, depending on the species, may cause allergic contact dermatitis and respiratory sensitization with prolonged, repetitive contact or exposure to elevated dust levels. Prolonged exposure to wood dust has been reported by some observers to be associated with nasal cancer.
Carcinogenicity Listing:

(X)	NTP:	Formaldehyde, Group 2, A & B
(X)	IARC Monographs:	Formaldehyde, Group 2A; Wood dust, Group 1
(X)	OSHA Regulated:	Formaldehyde

IARC - Group 2A: Probably carcinogenic to humans; limited human evidence and sufficient evidence in experimental animals. Studies of cancer incidence among workers in a wide variety of occupations have failed to convincingly show carcinogenic activity of formaldehyde in humans. Gaseous formaldehyde has been shown to cause cancer in certain laboratory animals after long-term exposure to very high concentrations (14+ ppm), far above those normally found in the workplace with this product.
IARC - Group 1: Carcinogenic to humans; sufficient evidence of carcinogenicity. This classification is primarily based on studies showing an association between occupational exposure to wood dust and adenocarcinoma of the nasal cavities and paranasal sinuses. IARC did not find sufficient evidence of an association between occupational exposure to wood dust and cancers of the oropharynx, hypopharynx, lung, lymphatic and hematopoietic systems, stomach, colon or rectum.
NTP - Group 2: Reasonably anticipated to be a carcinogen. **A)** Limited evidence of carcinogenicity from studies in humans which indicates that causal relationship is credible. **B)** Sufficient evidence of carcinogenicity from studies in experimental animals.

4. Emergency and First Aid Procedures

Ingestion: Not applicable under normal use.
Eye Contact: Gaseous formaldehyde may cause temporary irritation or temporary burning sensation. Wood dust may cause mechanical irritation. Treat dust in eye as foreign object. Flush with water to remove dust particles. Get medical help if irritation persists.
Skin Contact: High concentrations of gaseous formaldehyde may cause allergic contact dermatitis in sensitized individuals resulting in redness, itching, and occasionally, hives. Wood dust of certain species can elicit allergic contact dermatitis in sensitized individuals, as well as mechanical irritation. These products may be irritating to the skin from drying or mechanical abrasion experienced during frequent handling. Get medical help if rash, irritation, or dermatitis persists.
Skin Absorption: Not known to occur under normal use.
Inhalation: Gaseous formaldehyde may cause temporary irritation to the nose and throat. Wood dust may cause obstruction in the nasal passages, resulting in dryness of nose, dry cough, sneezing, and headaches. Remove to fresh air. Get medical help if persistent irritation, severe coughing, or breathing difficulty occurs.

5. Fire and Explosion Data

Flash Point (Method Used): NAP
Flammable Limits:
LEL: See below under "Unusual Fire and Explosion Hazards"
UEL: NAP
Extinguishing Media: Water, carbon dioxide, sand or dry chemical.
Autoignition Temperature: *Variable [typically 400-500°F (204-260°C)]*
Special Firefighting Procedures: None.

5. Fire and Explosion Data, cont.

Unusual Fire and Explosion Hazards: Depending on moisture content and more importantly, particle diameter, wood dust may explode in the presence of an ignition source. An airborne concentration of 40 grams (40,000 mg) of dust per cubic meter of air is often used as the LEL for wood dust.

6. Accidental Release Measures

Steps to be Taken In Case Material Is Released or Spilled: Not applicable for product in purchased form. Wood dust generated from sawing, sanding, drilling, or routing of products may be vacuumed or shoveled for recovery or disposal. Avoid dusty conditions and provide good ventilation. A NIOSH/MSHA-approved full-face respirator or half-mask respirator with chemical goggles should be worn when formaldehyde and/or wood dust exposure limits are exceeded. It is recommended that the full-face and half-mask respirators have a combination formaldehyde and dust cartridge.

7. Handling and Storage

Precautions to be Taken In Handling and Storage: No special handling precautions are required for products in purchased form. Avoid repeated or prolonged breathing of wood dust. Keep in cool, dry place away from open flame. This product may release small quantities of gaseous formaldehyde. Store in well ventilated area.

8. Exposure Control Measures

Personal Protective Equipment:

RESPIRATORY PROTECTION -- Not applicable for product in purchased form. A NIOSH/MSHA-approved dust respirator is recommended when allowable exposure limits may be exceeded.
PROTECTIVE GLOVES -- Not required. However, cloth, canvas, or leather gloves are recommended to minimize potential mechanical irritation from handling product.
EYE PROTECTION -- Not applicable for product in purchased form. Goggles or safety glasses are recommended when machining this product.
OTHER PROTECTIVE CLOTHING OR EQUIPMENT -- Not applicable for product in purchased form. Outer garments may be desirable in extremely dusty areas.
WORK/HYGIENE PRACTICES -- Follow good hygienic and housekeeping practices. Clean up areas where wood dust settles to avoid excessive accumulation of this combustible material. Minimize blowdown or other practices that generate high airborne-dust concentrations.

Ventilation:

LOCAL EXHAUST -- Provide local exhaust as needed so that exposure limits are met.
MECHANICAL (GENERAL) -- Provide general ventilation in processing and storage areas so that exposure limits are met.
SPECIAL -- None.
OTHER -- None.

9. Physical/Chemical Properties

Boiling Point (@ 760 mm Hg):	NAP
Vapor Pressure (mm Hg):	NAP
Vapor Density (air = 1; 1 atm):	NAP
Specific Gravity (H_2O = 1):	Variable; depends on wood species and moisture
Melting Point:	NAP
Evaporation Rate (Butyl acetate = 1):	NAP
Solubility in Water (% by weight):	<0.1
% Volatile by Volume [@ 70°F (21°C)]:	0
pH:	NAP

10. Stability and Reactivity

Stability: ( ) Unstable (x) Stable
Conditions to Avoid: Avoid open flame. Product may ignite at temperatures in excess of 400°F (204°C).
Incompatibility (Materials to Avoid): Avoid contact with oxidizing agents.
Hazardous Decomposition or By-Products: Thermal decomposition products include carbon monoxide, carbon dioxide, aliphatic aldehydes, rosin acids, terpenes, and polycyclic aromatic hydrocarbons.
Hazardous Polymerization: ( ) *May occur* (x) *Will not occur*

11. Toxicological Information

None available for product in purchased form.

Wood dust (softwood or hardwood) OSHA Hazard Rating = 3.3; moderately toxic with probable oral lethal dose to humans being 0.5-5 g/kg (about 1 pound for a 70 kg or 150 pound person).

Formaldehyde OSHA Hazard rating = 3 for *local and systemic acute and chronic exposures; highly toxic. Irritation studies: human skin, 150 ug/3 days, intermittent exposure produced mild results; human eye, 1 ppm/6 minutes, produced mild results.* Toxicity studies: human inhalation TCLO of 8 ppm reported but response not specified; human inhalation TCLO of 17/mg/m3 for 30 minutes produced eye and pulmonary results; human inhalation TCLO of 300ug/m3 produced nose and CNS results; LC50 (rat, inhalation) = 1,000 mg/m3/30 minutes; LC50 (mice, inhalation) = 400mg/m 3/2 hours.

Sources: Lewis, R.J., Sr. *1992 Sax's Dangerous Properties of Industrial Materials,* Eighth Edition, Van Nostrand Reinhold, NY.; *NIOSH Registry of Toxic Effects of Chemical Substances (RTECS), 1983-1984 Cumulative Supplement to 1981-1982 Edition and May 1995; OSHA Regulated Hazardous Substances,* Government Institutes, Inc., February 1990.

12. Ecological Information

No information available at this time.

13. Disposal Considerations

Waste Disposal Method: If disposed of or discarded in its purchased form, incineration is preferable. Dry land disposal is acceptable in most states. It is, however, the user's responsibility to determine at the time of disposal whether your product meets RCRA criteria for hazardous waste. Follow applicable federal, state, and local regulations.

14. Transport Information

Not regulated as a hazardous material by the U.S. Department of Transportation.

15. Regulatory Information

It is the user's responsibility to determine what regulatory information is relevant to the usage of this product.

16. Additional Information

Date Prepared: 07/26/89
Date Revised: 12/01/96
Prepared By: Safety & Health Risk Management
User's Responsibility: The information contained in this Material Safety Data Sheet is based on the experience of occupational health and safety professionals and comes from sources believed to be accurate or otherwise technically correct. It is the user's responsibility to determine if this information is suitable for their applications and to follow safety precautions as may be necessary. The user has the responsibility to make sure that this sheet is the most up-to-date issue.

Definition of Common Terms:

ACGIH	= American Conference of Governmental Industrial Hygienists
C	= Ceiling Limit
CAS#	= Chemical Abstracts System Number
EPA	= U.S. Environmental Protection Agency
IARC	= International Agency for Research on Cancer
LCLo	= Lowest concentration in air resulting in death
LC50	= Concentration in air resulting in death to 50% of experimental animals
LDLo	= Lowest dose resulting in death
LD50	= Administered dose resulting in death to 50% of experimental animals
MSHA	= Mining Safety and Health Administration
NAP	= Not Applicable
NAV	= Not Available
NIOSH	= National Institute for Occupational Safety and Health
NTP	= National Toxicology Program
OSHA	= Occupational Safety and Health Administration
PEL	= Permissible Exposure Limit
STEL	= Short-Term Exposure Limit (15 minutes)
TCLo	= Lowest concentration in air resulting in a toxic effect
TDLo	= Lowest dose resulting in a toxic effect
TLV	= Threshold Limit Value
TWA	= Time-Weighted Average (8 hours)
WHMIS	= Workplace Hazardous Materials Information System